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Two gluon correlation

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In this presentation we want to motivate a new technique to compute the momentum distribution for emission of an arbitrary number of gluons radiated from a high-pT quark passing through a QCD medium. The technique is an extension of the maximal helicity violating (MHV) method in which the usual soft-collinear factors are classified according to the gluon permutations symmetry. Based on the single gluon emission distribution, first we will present the distribution for the two gluon emissions in the assumption of a Poisson distribution. Second, we will show a rigorous technique using the MHV to compute the same distribution, and last we extract the non-abelian effect that break the Poissonian pattern.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

PhD

Main supervisor (name and email) and his / her institution

Dr WA Horowitz (wa.horowitz@uct.ac.za) at UCT

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

Yes

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